

The Blacklegged tick is the species of tick that has the potential to carry and transmit the bacterium that causes Lyme disease, *Borrelia burgdorferi*.

NOTE: Male Blacklegged ticks can become infected, but they are not known to be capable of transmitting the bacterium. Infected Blacklegged ticks are only able to transmit the bacterium while in the nymphal stage of life, or as adult females.

Because of the growing numbers, and the expanding range of the Blacklegged tick, the potential for human-tick and animal-tick encounters are rising correspondingly, and it makes sense to be aware of this especially if one lives in an area or frequents areas where these ticks are found. The following link will lead you to Public Health Ontario's most up-to-date map of High-Risk areas in the province.

[Ontario Lyme Disease Map 2022: Estimated Risk Areas](#)

NOTE: This map provides information regarding areas where ticks were found through active surveillance and says nothing about infection rates. Infection rates in ticks is mentioned in the Clinical Guidance Document provided below. The term “endemic” is no longer used as too few places meet the necessary criteria (places where it has been shown that the bacteria are circulating in the environment – through resident wildlife and tick populations), so it should not necessarily be assumed that “high-risk” = “high potential for infection” though it is reasonable to assume that the presence of blacklegged ticks may indicate the presence of the bacteria. The map is an instrument to be used for heightened awareness and vigilance, and to suggest areas where more active surveillance should be considered.

Despite this map, because Blacklegged ticks are frequently transported by migratory birds they can be found anywhere in the province of Ontario.

Public Health recommends the following:

Be vigilant. Learn about the kinds of habitat that different ticks prefer so these areas can be avoided (Blacklegged ticks are typically found in mixed hardwood forest areas that are also home to small mammals such as mice, squirrels, chipmunks, etc.)

- Conduct “tick checks” whenever you, family members, pets, etc. have spent time in the kind of habitat that ticks prefer (checking each other out, especially those places we can't see on our own like the back areas of the body, including the head)
- Learn about the symptoms of Lyme disease ... ticks can bite without being noticed and many people who acquire the disease have no recollection of any exposure. Being aware of the symptoms of Lyme can be instrumental in preventing further progress of the disease
- Learn about the seasonal activity of Blacklegged ticks ... they are not all killed off by winter, adults have two “peak seasons” in spring and then autumn, and the nymphs which are quite a lot smaller than the adults are most active during the warmer parts of the summertime when people are more active outdoors and wearing less clothing. Nymphs require less time feeding to transit the bacteria, and are small enough to usually go unnoticed

The only way to prevent ticks from biting is through repellency, and avoidance of favourable habitat.

This is a very good site for learning about Blacklegged tick habitat ...

<http://www.tickencounter.org/>

Health Canada, as well Tick Encounter (above) have very good info regarding treatment, protection, repellents, and the symptoms of Lyme disease ...

<https://www.canada.ca/en/public-health/services/diseases/lyme-disease.html>

An infected adult female Blacklegged tick requires at least 36 hours of active feeding in order to transmit the bacteria (*if* infected ... it is important to understand that Blacklegged ticks are not born infected, and the great majority of Blacklegged ticks never become infected). It is advisable to learn and monitor for the early symptoms of Lyme disease, which are treatable with antibiotics. The image below illustrates how a Blacklegged tick expands in size as it feeds on blood.

It is recommended that you consult with a medical practitioner about exposures involving Blacklegged ticks that have attached to the body.

The following link will take you to a **Clinical Guidance Document** that outlines the decision-making process for those who have had tick exposures ...

<https://www.hqontario.ca/Portals/0/documents/evidence/qs-clinical-guidance-lyme-disease-en.pdf>

Wellington-Dufferin-Guelph Public Health no longer submits Blacklegged ticks to Health Canada for testing. Tick-testing is not done for diagnostic purposes, and Health Canada has stopped testing entirely. Further, the infective status of the tick should not be used in determining whether-or-not post-exposure treatment is warranted. Regardless, if you would like to determine the infection status of the tick it can be submitted to an unaccredited private lab for testing. Two private laboratories that will test Blacklegged ticks for *Borrelia burgdorferi* are;

Entomogen (<https://entomogen.ca/index.php>)

Geneticks (<https://www.geneticks.ca/>)

Dogs can acquire the bacteria and develop Lyme disease, but symptoms occur in less than 5% of cases according to past and current research and literature. If you have concerns about Lyme disease in dogs, discuss the situation with a veterinarian. The following is also an excellent paper on dogs and Lyme FYI.

<https://onlinelibrary.wiley.com/doi/full/10.1111/jvim.15085>